Chart VI.—*Percentage of clear sky between sunrise and sunset.* The average cloudiness at each Weather Bureau station is determined by numerous personal observations between sunrise and sunset. The difference between the observed cloudiness and 100 is assumed to represent the percentage of clear sky, and the values thus obtained are the basis of this chart. The chart does not relate to the nighttime.

Chart VII.—*Isobars and isotherms at sea-level, and prevailing wind directions.* The pressures have been reduced to sea-level and standard gravity by the method described by Prof. Frank H. Bigelow on pages 13–16 of the REVIEW for January, 1902. The pressures have also been reduced to the mean of the 24 hours by the application of a suitable correction to the mean of the 8 a. m. and 8 p. m. readings at stations taking two observations daily, and to the 8 a. m. or the 8 p. m. observation, respectively, at stations taking but a single observation. The diurnal corrections so applied will be found in the Annual Report of the Chief of the Weather Bureau, 1900–1901, volume 2, Table 27, pages 140–164.

The isotherms on the sea-level plane have been constructed by means of the data summarized in chapter 8 of volume 2 of the annual report just mentioned. The correction $t_0 - t$, or temperature on the sea-level plane minus the station temperature as given by Table 48 of that report, is added to the observed surface temperature to obtain the adopted sea-level temperature.

The prevailing wind directions are determined from hourly observations at the great majority of the stations. A few stations having no self-recording wind-direction apparatus determine the prevailing direction from the daily or twice-daily observations only

Chart VIII.—*Total snowfall.* This is based on the reports from regular and cooperative observers and shows the depth in inches of the snowfall during the month. In general, the depth is shown by lines inclosing areas of equal snowfall, but in special cases figures are also given. Chart VIII is published only when the general snow cover is sufficiently extensive to justify its preparation.

Chart IX.—*Meteorological conditions over the North Atlantic Ocean.*

CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course the number of such records is smaller than the total number of stations.

Condensed climatological summary of temperature and precipitation by sections. January, 1919.

			Temperature.										Precipitation.			
					Monthly extremes.								Greatest monthly.		Least monthly.	
Section.	Section average.	Departure from the normal.	Station.	Highest.	Date.	Station.	Lowest.	Date.	Section average.	Departure from the normal.	Station.	Amount.	Station.	Amount.
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	44.5	− 1.2	2 stations	77	1	St. Bernard	−11	4	5.84	+1.07	Cochrane	11.11	Tuscumbia	3.33
Arizona	37.6	− 4.8	Sentinel	80	25	Chin Lee	−32	2	0.47	−0.95	Childs	2.20	4 stations	0.00
Arkansas	41.4	+ 0.1	Dardanelle	75	13	2 stations	− 3	4	3.00	−1.23	Sheridan	7.80	Rogers	0.32
California	46.3	+ 0.5	Indio	87	22	Alturas	−18	1	2.73	−2.68	Upper Mattole	22.92	4 stations	0.00
Colorado	21.0	− 3.9	Canon City	65	24	3 stations	−39	1	0.16	−0.85	Savage Basin	1.07	14 stations	0.00
Florida	57.8	− 0.8	Homestead	85	25†	Garniers (near)	14	4	2.32	−0.56	Garniers (near)	6.45	Ritta	0.05
Georgia	47.1	+ 0.1	Brunswick	79	1	2 stations	2	4	4.79	+0.99	Tallapoosa	8.03	Waycross	1.67
Hawaii (December)	69.7	+ 0.1	Waianae, Oahu	90	26†	2 stations	48	5	11.09	+2.50	Honokane, Hawaii	44.53	Kula Sanitarium	0.03
Idaho	26.0	+ 1.9	4 stations	62	21†	New Meadows	−26	1	1.64	−0.64	Wallace	8.20	2 stations	0.01
Illinois	31.7	+ 4.8	Carbondale	66	1°†	Morrison	−26	4	0.46	−2.11	Palestine	1.77	3 stations	T.
Indiana	33.2	+ 4.3	Rome	66	29	La Porte	−14	4	1.02	−2.09	Rome	2.29	Veedersburg	T.
Iowa	26.8	+ 5.8	Centerville	64	19	Maquoketa	−25	4	0.24	−0.81	Nora Springs	0.86	6 stations	T.
Kansas	30.2	+ 0.8	Ellsworth	69	20	Salina	−25	3	0.07	−0.68	Wamego	0.49	28 stations	0.00
Kentucky	37.9	+ 2.7	3 stations	68	19†	Marion	− 1	4	3.62	−0.77	2 stations	7.10	Louisville	1.63
Louisiana	48.7	− 2.1	Houma	82	1	Newellton	6	4	6.33	+1.97	Napoleonville	8.80	Ruston	3.19
Maryland-Delaware	34.2	+ 3.2	College Park, Md.	66	21	Oakland, Md.	−19	5	3.50	+0.10	Seaford, Del	4.70	Westernport, Md	1.45
Michigan	26.2	+ 5.5	3 stations	59	18†	Sidnaw	−31	4	0.87	−1.21	Marquette	2.21	Omer	0.10
Minnesota	18.5	+10.2	Worthington	55	24	Itasca State Park	−45	3	0.38	−0.34	Redwood Falls	1.60	Tracy	0.05
Mississippi	44.9	− 2.2	2 stations	78	1†	Louisville	− 3	3	5.46	+0.78	Edwards	8.93	Pontotoc	1.35
Missouri	34.0	+ 3.6	Marble Hill	70	12	Maryville	−23	4	0.40	−1.88	New Madrid	4.47	Avalon	0.00
Montana	29.2	+10.6	Choteau	79	16	2 stations	−35	3	0.62	−0.48	Heron	5.91	4 stations	0.00
Nebraska	30.2	+ 8.6	Weeping Water	71	30	Ainsworth	−28	3	0.00	−0.47	Atkinson	0.75	25 stations	0.00
Nevada	30.0	+ 0.3	3 stations	70	12†	Owyhee	−24	1	0.17	−0.99	Marlette Lake	1.43	5 stations	0.00
New England	25.9	+ 4.8	Cavendish, Vt	61	17	Enosburg Falls, Vt.	−27	12	3.11	−0.34	Kingston, R. I	5.96	Northfield, Vt	1.02
New Jersey	34.1	+ 4.3	2 stations	62	2	Culvers Lake	− 9	5†	3.51	−0.28	Atlantic City	4.44	Layton	2.24
New Mexico	26.0	− 7.4	3 stations	70	31	Dulse	−37	2	0.16	−0.78	Cloverdale	1.33	32 stations	0.00
New York	27.9	+ 5.1	New York City	60	1	North Lake	−27	11	2.01	−0.84	Adams Center	6.79	Avon	0.23
North Carolina	42.5	+ 1.6	Newbern	77	22	Banners Elk	− 7	4	4.75	+1.05	Highlands	8.53	Edenton	2.30
North Dakota	18.7	+13.8	Beach	66	25	Steele	−44	1	0.16	−0.38	Colgate	0.60	6 stations	0.00
Ohio	32.9	+ 4.4	Peebles	72	22	Millport	− 9	5	1.60	−1.62	Portsmouth	4.13	North Bass Island	0.45
Oklahoma	37.8	− 0.8	3 stations	72	11	Kenton	−20	1	0.74	−0.50	Antlers	3.45	Mutual	0.00
Oregon	35.7	+ 0.6	Grants Pass	71	22	Austin	−25	1	4.52	+0.76	Deadwood	24.63	Hampton	0.16
Pennsylvania	32.0	+ 4.1	Uniontown	64	1	Ebensburg	−15	5	2.54	−0.84	Somerset	4.54	Lawrenceville	1.00
Porto Rico	73.8	+ 0.6	San Salvador	97	12	3 stations	53	2†	3.56	0.00	Arecibo	7.85	2 stations	0.80
South Carolina	47.1	+ 1.6	Oaks	80	2	Landrum	8	4	4.15	+0.71	Liberty	8.50	Paris Island	0.30
South Dakota	27.3	+11.5	Bellefourche	66	18	Pollock	−39	3	0.12	−0.39	Harveys Ranch	1.40	14 stations	0.00
Tennessee	39.3	+ 0.5	Newport	74	1	2 stations	− 8	4	5.39	+0.88	Celina	8.23	Union City	2.49
Texas	45.3	− 3.1	McKinney	84	13	Dalhart	−17	1	3.09	+1.85	Anahuac	8.97	5 stations	0.00
Utah	24.5	− 1.0	Springdale	66	23	Hanksville	−35	2	0.09	−1.41	Silver Lake	0.72	27 stations	0.00
Virginia	38.4	+ 2.7	2 stations	71	21	Burkes Garden	−10	5	3.97	+0.67	Clarksville	6.04	Winchester	1.92
Washington	33.8	+ 3.3	Kennewick	68	23	2 stations	−10	1	6.17	+1.31	Wind River	23.82	Sunnyside	0.63
West Virginia	34.1	+ 1.1	Glenville	69	22	Terra Alta	−16	5	3.79	−0.18	Pickens	6.06	Upper Tract	1.60
Wisconsin	22.2	+ 7.8	Prairie du Sac	59	26	Hillsboro	−42	4	0.57	−0.64	Oconto	1.38	Solon Springs	0.10
Wyoming	24.3	+ 4.5	2 stations	64	17†	Sheridan Creek	−33	1	0.16	−0.66	Moran	1.36	16 stations	0.00

† Other dates also.